BIBLIOGRAPHICAL NOTICES.

Index to the Fossil Remains of Aves, Ornithosauria, *and* Reptilia, *from the Secondary System of Strata, arranged in the Woodwardian Museum of the University of Cambridge.* By H. G. Seeley, of St. John's College, Cambridge. *With a Prefatory Notice* by the Rev. A. Sedgwick, LL.D. &c. &c. Pp. 143, 8vo. Cambridge and London, 1869.

The Woodwardian Museum holds a high place among Geological Institutions. It has been enriched by the careful gatherings and liberal gifts of the venerable Woodwardian Professor, and by the active cooperation and liberality of many University men and others following so good an example. It is well housed and cared for by the University and the Professor, as the illustrative material of the Cambridge school of Geology; and the well printed volume before us not only enhances the usefulness of the museum to students, but, as a classificatory catalogue of its precious collection of Reptilian remains, carefully allocated and critically determined, it supplies a standing-ground for herpetologists, whether working out their own views of the alliances of recent and fossil Reptiles, or following the plan of research indicated by Mr. Seeley's proposed relationships of the numerous osseous relics of new or ill-understood genera and species. Mr. Seeley separates the Pterodactyles and their fellows from the Reptilia as "Ornithosauria" (Pterosauria), and regards the Birds as an intermediate group. His views on the Pterodactyles are published in the 'Annals of Nat. Hist.,' and the specimens which he has already illustrated and described are indicated in this catalogue. Very many specimens described and figured by Professor Owen in the monographs of the Palæontographical Society are in this collection and are duly noted.

From the several tables in the List of Contents, pp. xi–xxiii, the reader gathers much information; thus there are:—1. The "Table of the Distribution of the large Groups of Animals in the Secondary Strata," as far as the mass of material in the Cambridge collection shows. 2. "Table of Secondary Strata, showing the larger Groups of Animals which they contain," as illustrated by the same collection; and it is rich in these osseous fossils from the Chalk, the Cambridge Upper Greensand, Gault, Potton Sands, Wealden Series, Purbeck Series, Portland Stone, Kimmeridge Clay, Coral-rag and Ampthill Clay, Oxford Clay, Great Oolite, and Lias. 3. "An approximate List of the Species included in the catalogue, with provisional names for new species and reference to the specimens on which they are founded, and to the pages of the Index in which they are described." These are arranged according to the geological formations. Thus from the Chalk we find one new species of *Ichthyosaurus*; from the Upper Greensand seventeen new species of a new Pterosaurian genus (*Ptenodactylus*), which comprises some of Owen's *Pterodactyli*, whilst another, accompanied by two new species, falls into Seeley's new *Ornithocheirus*. *Enaliornis* is a new bird-genus

from the same formation. Three new species fall to Huxley's *Acanthopholis*, one of the Dinosaurs. *Macrosaurus* is a new Dinosaur. Four new species are added to the Ichthyosaurs. There is a new species of Crocodile; seven new Plesiosaurs; three new Steneosaurs. A new Chelonian genus (*Rhinochelys*) involves one of Owen's *Chelones*, and has sixteen species besides; and *Trachydermochelys* is another new genus from this exceedingly rich deposit of the remains of Mesozoic life.

A new *Iguanodon* (*Phillipsii*) from the Wealden is indicated. A new *Pterodactylus* and four new species of *Pleurosternon* are added from Purbeck. The Kimmeridge Clay yields a new terrestrial reptile (*Gigantosaurus megalonyx*), two new Ichthyosaurs, a new Dakosaur, two new Plesiosaurs, and a new Chelonian (*Enaliochelys*); and pages 102–105 are devoted to a critical examination of some vertebræ from the Kimmeridge Clay, that lead Mr. Seeley to refer Owen's *Plesiosaurus brachyspondylus* and *Pl. brachydeirus* both to *Pliosaurus*. Lastly, the new genus *Cryptosaurus* and some new species of Ichthyosaur, Pliosaur, Plesiosaur, and Steneosaur come from the Oxford Clay.

Great care has been taken in the preparation and production of this valuable catalogue*. The Prefatory Note by the reverend Woodwardian Curator and Professor shows his hearty earnestness in his work,—the pleasurable reminiscences of his collecting-days and fellow workers in years gone by,—his no less cordial appreciation of the researches and labours of the younger men who come and go with the tides of university life,—and his warm recognition of Mr. Seeley's zealous and patient study, some of the results of which are so conspicuously shown in this well-arranged and richly suggestive catalogue.

Professor Sedgwick intimates that other catalogues are in progress, and among them a more detailed catalogue of the Reptilian remains. It is by such adjuncts that a museum is made of value to students; and already the Woodwardian Professor has made great progress to this end, both with the catalogue before us and the magnificent work by himself and M'Coy on the British Palæozoic Fossils in the Cambridge Museum, published in 1852.

Mémoire sur les Ascoboles. Par M. E. Boudier. (Annales des Sciences Naturelles, cinquième série, tome x. 1868.)

M. Boudier has published an interesting account of the genus *Ascobolus* in the 'Annales des Sciences Naturelles' for 1868. It is the first time that that genus has been treated monographically, with the accompaniment of carefully drawn coloured figures, as well of the plants as seen by the unassisted eye, and slightly magnified, as of their fructification viewed under the higher powers of the microscope. M. Boudier traces the history of the genus from the

* By printer's error, probably, *procœlous* and *procœlian* are misspelt at pages 45 and 80.